

link save

LOCUS T61718 102 bp mRNA linear EST 14-FEB-1995
DEFINITION yb92e07.r1 Stratagene liver (#937224) Homo sapiens cDNA clone
IMAGE:78660 5' similar to SP:B42997 B42997
RETINOBLASTOMA-ASSOCIATED PROTEIN 2 - ;, mRNA sequence.
ACCESSION T61718
VERSION T61718.1 GI:664961
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 102)
AUTHORS Hillier,L., Lennon,G., Becker,M., Bonaldo,M.F., Chiapelli,B.,
Chissoe,S., Dietrich,N., DuBuque,T., Favello,A., Gish,W., Hawkins
, M., Hultman,M., Kucaba,T., Lacy,M., Le,M., Le,N., Mardis,E., Moore
, B., Morris,M., Parsons,J., Prange,C., Rifkin,L., Rohlfing,T.,
Schellenberg,K., Soares,M.B., Tan,F., Thierry-Meg,J., Trevaskis,E.,
Underwood,K., Wohldmann,P., Waterston,R., Wilson,R. and Marra,M.
TITLE Generation and analysis of 280,000 human expressed sequence tags
JOURNAL Genome Res. 6 (9), 807-828 (1996)
MEDLINE 97044478
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
Insert Size: 34
High quality sequence stops: 66 Source: IMAGE Consortium, LLNL This
clone is available royalty-free through LLNL ; contact the IMAGE
Consortium (info@image.llnl.gov) for further information.
Seq primer: M13RP1
High quality sequence stop: 66.
FEATURES Location/Qualifiers
source 1..102
/organism="Homo sapiens"
/db_xref="GDB: 498405"
/db_xref="taxon:9606"
/clone="IMAGE:78660"
/clone_lib="Stratagene liver (#937224)"
/sex="male"
/dev_stage="49 years old"
/lab_host="SOLR cells (kanamycin resistant)"
/note="Organ: liver; Vector: pBluescript SK; Site_1: EcoRI
; Site_2: XhoI; Cloned unidirectionally. Primer: Oligo
dT. Hepatectomy from normal male caucasian. Average insert
size: 1.1 kb; Uni-ZAP XR Vector; -5' adaptor sequence: 5'
GAATTGGCAGGAG 3' ~3' adaptor sequence: 5'
CTCGAGTTTTTTTTTTTTTTTTT 3'"
BASE COUNT 33 a 12 c 26 g 29 t 2 others
ORIGIN
1 acgaggaaaa aatcaaaaaa tgtatgaagc tagtattaaa gattctgatg tcgaagggtgg
61 agaggtcctt tacttggtgc attactgcng atggcatntt at
//

[link](#) [save](#)

LOCUS R14337 395 bp mRNA linear EST 12-APR-1995
 DEFINITION yf79b11.r1 Soares infant brain 1NIB Homo sapiens cDNA clone
 IMAGE:28436 5', mRNA sequence.
 ACCESSION R14337
 VERSION R14337.1 GI:767413
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 395)
 AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlffing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
 TITLE The WashU-Merck EST Project
 JOURNAL Unpublished (1995)
 COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 1350
 High quality sequence stops: 298 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1350 Std Error: 0.00
 Seq primer: M13RP1
 High quality sequence stop: 298.
 FEATURES Location/Qualifiers
source 1..395
 /organism="Homo sapiens"
 /db_xref="GDB: 400783"
 /db_xref="taxon:9606"
 /clone="IMAGE:28436"
 /clone_lib="Soares infant brain 1NIB"
 /sex="female"
 /dev_stage="73 days post natal"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: whole brain; Vector: Lafmid BA; Site_1: Not
 I; Site_2: Hind III; 1st strand cDNA was primed with a Not
 I - oligo(dT) primer [5'
 AACTGGAAGAATTGCAGGCGCAGGAATTTTTTTTTTTTTTTT 3'];
 double-stranded cDNA was ligated to Hind III adaptors
 (Pharmacia), digested with Not I and directionally cloned
 into the Not I and Hind III sites of the Lafmid BA vector.
 Library went through one round of normalization. Library
 constructed by Bento Soares and M.Fatima Bonaldo."
 BASE COUNT 129 a 51 c 79 g 133 t 3 others
 ORIGIN
 1 aaagagttaac tttgattacg taaaaagccct ttgaagtatt ttaatgaaca ctatgttttg
 61 ctattggtaa gaaatctgct tggttttatta aaatgcctaa ttgaagaaaa taatattctt
 121 ctgtgattaa aatttaggaag aaatagaacc atttccagaa gaaaggggaga actttcttca
 181 gcaattgtac aaatttatgg aagatagagg tgagtatttt ttatttatca ttaacgtggg
 241 taagtttgg gacagataat taggtatctt aaaaataagg aataggaatt ttgtttactg
 301 aactttatgt catcaggtaa ttatggcng tctttttga ctctggatat cacncgacc
 361 ctggccttagc gccntgtcca cggtaacca ggtag
 //

link save

LOCUS R27405 324 bp mRNA linear EST 24-APR-1995
 DEFINITION yh46c12.r1 Soares placenta Nb2HP Homo sapiens cDNA clone
 IMAGE:132790 5', mRNA sequence.
 ACCESSION R27405
 VERSION R27405.1 GI:783540
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 324)
 AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
 TITLE The WashU-Merck EST Project
 JOURNAL Unpublished (1995)
 COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 1638
 High quality sequence stops: 227
 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1638 Std Error: 0.00
 Seq primer: M13RP1
 High quality sequence stop: 227.
 FEATURES Location/Qualifiers
source
 1..324
 /organism="Homo sapiens"
 /db_xref="GDB: 538432"
 /db_xref="taxon:9606"
 /clone="IMAGE:132790"
 /clone_lib="Soares placenta Nb2HP"
 /sex="Female"
 /dev_stage="placenta obtained at birth (full term)"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: placenta; Vector: pT7T3D (Pharmacia) with a
 modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
 strand cDNA was primed with a Not I - oligo(dT) primer [5'
 AACTGGAAAGAATT CGCGGCCGCAGGAATTTTTTTTTTTTT 3'],
 double-stranded cDNA was ligated to Eco RI adaptors
 (Pharmacia), digested with Not I and cloned into the Not I
 and Eco RI sites of the modified pT7T3 vector. Library
 went through one round of normalization. Library
 constructed by Bento Soares and M.Fatima Bonaldo. "
 BASE COUNT 103 a 51 c 61 g 105 t 4 others
 ORIGIN
 1 ccagtttcgc ataagttgag agtaggtatt cttgaacctg tgatcctgat ttgaaaaata
 61 gctctctcat atggtaaaaa aaacaaaaaca aaacaaaaca aaaccacgaa cagtcttgct
 121 agtccctttt ctcatatggg aattttact gtggggattc taactattgg gatactttt
 181 aaggcatatt cctctataaa acataaaatg tctaggactt acctgggtt tgaacagctt
 241 agtgttaaaa gggtaacttt gnattacgta aaaaggcctt tgnaggtat tttnaatgga
 301 acacttggtc ttgcntatt ggg
 //

link save

LOCUS R40663 412 bp mRNA linear EST 22-MAY-1995
DEFINITION yf79b11.s1 Soares infant brain 1NIB Homo sapiens cDNA clone
 IMAGE:28436 3', mRNA sequence.
ACCESSION R40663
VERSION R40663.1 GI:821001
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 412)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT On May 5, 1995 this sequence version replaced gi:798279.
 Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 1350
 High quality sequence stops: 225 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1350 Std Error: 0.00
 Seq primer: Promega -21m13
 High quality sequence stop: 225.
FEATURES
source Location/Qualifiers
 1..412
 /organism="Homo sapiens"
 /db_xref="GDB: 400783"
 /db_xref="taxon:9606"
 /clone="IMAGE:28436"
 /clone_lib="Soares infant brain 1NIB"
 /sex="female"
 /dev_stage="73 days post natal"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: whole brain; Vector: Lafmid BA; Site_1: Not
 I; Site_2: Hind III; 1st strand cDNA was primed with a Not
 I - oligo(dT) primer [5'
 AACTGGAAGAATTGCAGGCGCAGGAATTTTTTTTTTTTTTT 3'];
 double-stranded cDNA was ligated to Hind III adaptors
 (Pharmacia), digested with Not I and directionally cloned
 into the Not I and Hind III sites of the Lafmid BA vector.
 Library went through one round of normalization. Library
 constructed by Bento Soares and M.Fatima Bonaldo."
BASE COUNT 126 a 71 c 78 g 135 t 2 others
ORIGIN
 1 tttttttttc attctaacc aagaaaacgc aaggcaagga tgctaaatca aacaaaccat
 61 gagaaaagtgg tagaggaggt aacaggggag gggtacaatg cctcatatgg ccatttctac
 121 aaaatatatg actggcttaa tcatttttt tcattttttt ctatgtttt attttattca
 181 ttttcttgc tttttcattt atcttataca agagctatg aaacagcata cttcttaggg
 241 ccaaccctcc attcatgtaa agaaataata caagaattca aaggacatt tatattggaa
 301 aaaggaaata tacttatatt gtgttagggc gttgttatcc tttatggaaa cctaaacctg
 361 gacaaccggg gtcgggttct actcctcggg cttccattc gggggnttg gg
 //

THIS PAGE BLANK (USP)

link save

LOCUS R44970 480 bp mRNA linear EST 22-MAY-1995
DEFINITION yg33e02.s1 Soares infant brain 1NIB Homo sapiens cDNA clone
 IMAGE:34227 3', mRNA sequence.
ACCESSION R44970
VERSION R44970.1 GI:824325
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 480)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT On May 9, 1995 this sequence version replaced gi:803694.
 Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 1365
 High quality sequence stops: 397 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1365 Std Error: 0.00
 Seq primer: Promega -21m13
 High quality sequence stop: 397.
FEATURES
source Location/Qualifiers
 1..480
 /organism="Homo sapiens"
 /db_xref="GDB: 406574"
 /db_xref="taxon:9606"
 /clone="IMAGE:34227"
 /clone_lib="Soares infant brain 1NIB"
 /sex="female"
 /dev_stage="73 days post natal"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: whole brain; Vector: Lafmid BA; Site_1: Not
 I; Site_2: Hind III; 1st strand cDNA was primed with a Not
 I - oligo(dT) primer [5'
 AACTGGAAAGAATTCTCGCGGCCGCAGGAATTTTTTTTTTTTTTTTT 3'];
 double-stranded cDNA was ligated to Hind III adaptors
 (Pharmacia), digested with Not I and directionally cloned
 into the Not I and Hind III sites of the Lafmid BA vector.
 Library went through one round of normalization. Library
 constructed by Bento Soares and M.Fatima Bonaldo."
BASE COUNT 110 a 84 c 125 g 160 t 1 others
ORIGIN
 1 tatttcctct tctgtcggtc cccaaactgtt agatgtttct tagttgaggc gtccgttttg
 61 tgaatatgag aataaaagcac gcatttggtt ctgaataagt tgatctttgc tttctaaaga
 121 ctccagcaaa cattctaagt tagtggttt cctgttgaga atctctatgt gtaatgagag
 181 atttgctgtt gagattgtgt tatacatgtg taagtatgaa tgcagacaaa aggttgaagg
 241 attactagtg taggaaatga aggacctgct ccatctgtaa tcttgggtttt cttgtcttc
 301 cttgcccttc tctaccacgg ttgggtcatt ctcactgcca agggAACCTG gacaatgtta
 361 ctcttgcttg ggcgtttaa gccttgggtg tctaaggcgtt accaggacc agggggaaagg
 421 agtctttcat ccatcctcca gtggatggaa ggtatgggg tggtagggg gnaacaggtt

//

THIS PAGE BLANK (USPTO)

link save

LOCUS H08612 398 bp mRNA linear EST 23-JUN-1995
DEFINITION yl94g10.r1 Soares infant brain 1NIB Homo sapiens cDNA clone
 IMAGE:45995 5' similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN 1 (HUMAN);, mRNA sequence.
ACCESSION H08612
VERSION H08612.1 GI:873434
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 398)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlffing,T., Soares,M., Tan,F., Trevaskis,E., Waterston ,R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 2081
 High quality sequence stops: 124
 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 2081 Std Error: 0.00
 Seq primer: M13RP1
 High quality sequence stop: 124.
FEATURES
source Location/Qualifiers
 1..398
 /organism="Homo sapiens"
 /db_xref="GDB: 418536"
 /db_xref="taxon:9606"
 /clone="IMAGE:45995"
 /clone_lib="Soares infant brain 1NIB"
 /sex="female"
 /dev_stage="73 days post natal"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: whole brain; Vector: Lafmid BA; Site_1: Not I; Site_2: Hind III; 1st strand cDNA was primed with a Not I - oligo(dT) primer [5'
 AACTGGAAAGAATTCTCGCGGCCGCAGGAATTTTTTTTTTTTTTT 3']; double-stranded cDNA was ligated to Hind III adaptors (Pharmacia), digested with Not I and directionally cloned into the Not I and Hind III sites of the Lafmid BA vector. Library went through one round of normalization. Library constructed by Bento Soares and M.Fatima Bonaldo."
BASE COUNT 141 a 73 c 90 g 91 t 3 others
ORIGIN
 1 aaaggcaca aatgttgtga tagtgaagaa ctttcagctg gtgaaagtat aactaagagt
 61 cagccagtca aatcagtttc cactggatg aagtctcata gtaccaaattc tcccccaagg
 121 acgcagctcc agggaaatgt gggaaagaatg gtgataagga tcctgatctc aaggaaccca
 181 gtaatcgatt acccaaagt tacaatgg attttcagat gtcggacctg ggaaatatga
 241 caagtgccga acgcattcaca attcttcaag aaaaacttca agaaatcaga aaacattatc
 301 tgtcattaaa atctgaagta gcttccattt atccggagggn gaaagcgtt taaagnagga
 361 aaggagngga ggaaagtgtc gcttacatcc tcattcct

//

THIS PAGE BLANK (us)

link save

LOCUS H38607 437 bp mRNA linear EST 16-AUG-1995
DEFINITION yp48e07.r1 Soares retina N2b4HR Homo sapiens cDNA clone
IMAGE:190692 5', mRNA sequence.
ACCESSION H38607
VERSION H38607.1 GI:908106
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 437)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
Rifkin,L., Rohlffing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
,R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
Insert Size: 2679
High quality sequence stops: 341
Source: IMAGE Consortium, LLNL
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 2679 Std Error: 0.00
Seq primer: M13RP1
High quality sequence stop: 341.
FEATURES
source Location/Qualifiers
1..437
/organism="Homo sapiens"
/db_xref="GDB: 3847101"
/db_xref="taxon: 9606"
/clone="IMAGE:190692"
/clone_lib="Soares retina N2b4HR"
/sex="male"
/tissue_type="retina"
/dev_stage="55 year old"
/lab_host="DH10B (ampicillin resistant)"
/note="Organ: eye; Vector: pT7T3D (Pharmacia) with a
modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
strand cDNA was primed with a Not I - oligo(dT) primer [5'
TGTTACCAATCTGAAGTGGGAGCGGCCGCGCTTTTTTTTTTTTTTT
3'], double-stranded cDNA was size selected, ligated to Eco RI
adapters (Pharmacia), digested with Not I and cloned into
the Not I and Eco RI sites of a modified pT7T3 vector
(Pharmacia). The retinas were obtained from a 55 year old
Caucasian and total cellular poly(A)+ RNA was extracted 6
hrs after their removal. The retina RNA was kindly
provided by Roderick R. McInnes M.D. Ph.D. from the
University of Toronto. Library constructed by Bento
Soares and M.Fatima Bonaldo. "

BASE COUNT 106 a 84 c 83 g 163 t 1 others
ORIGIN

```

1 tgacttcatc ttcttcataa tcagtatctt cgggataata cttctataatc tttccttaat
61 ctttctggag attttgacac tggtttggat attaccaaat ctgcattgaac tttgtttct
121 tcttagcaaag atgaactgtt ctgttcctcc tttgaaataa gatcatttct gttgtggc

```

181 aaatgatcaa tcttagattc ctctttgccca ttatttatcca tgtcttgagc acctctctca
241 tcttcctgct cactgtcttc agcagaacct tcagaagctt gaagtccatt aaaggatcga
301 agtaatttct atggacttaa tatggagcag tatcagagtt tttggcatca gtgagatcca
361 gtttggatn ccatttccag gagatggat ttgtctgaaa tggtggttt gggccaagcg
421 ccgaagttt cagttt

//

link save

LOCUS H39516 481 bp mRNA linear EST 16-AUG-1995
 DEFINITION yo54h10.r1 Soares breast 3NbHBst Homo sapiens cDNA clone
 IMAGE:181795 5' similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN
 1 (HUMAN);, mRNA sequence.
 ACCESSION H39516
 VERSION H39516.1 GI:915592
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 481)
 AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
 TITLE The WashU-Merck EST Project
 JOURNAL Unpublished (1995)
 COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 Insert Size: 773
 High quality sequence stops: 400
 Source: IMAGE Consortium, LLNL
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 773 Std Error: 0.00
 Seq primer: M13RP1
 High quality sequence stop: 400.
 FEATURES Location/Qualifiers
source 1..481
 /organism="Homo sapiens"
 /db_xref="GDB: 3814995"
 /db_xref="taxon:9606"
 /clone="IMAGE:181795"
 /clone_lib="Soares breast 3NbHBst"
 /sex="Female"
 /dev_stage="adult"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: breast; Vector: pT7T3D (Pharmacia) with a
 modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
 strand cDNA was primed with a Not I - oligo(dT) primer [5'
 TGTTACCAATCTGAAGTGGAGCGGCCCTTTTTTTTTTTTTT 3'],
 double-stranded cDNA was ligated to Eco RI adaptors
 (Pharmacia), digested with Not I and cloned into the Not I
 and Eco RI sites of a modified pT7T3 vector (Pharmacia).
 Library went through one round of normalization to a Cot =
 20. Library constructed by Bento Soares and M.Fatima
 Bonaldo."
 BASE COUNT 103 a 133 c 82 g 163 t
 ORIGIN
 1 cacctctctc cctctccctc ctc(ccc)cctc tggtatatga tttagatctc
 61 ttccctctatt tgtttcttt cctatgactg gagtgccaaa atgctcaggg ttgggtgagt
 121 ggagctggtc taatgtttca ctccagcaa aatgcctctc tccttcagg cacagtgaag
 181 atcgtctcag tgtcttcata tcccgatcat caaaaactac agtgtaccaa ctgcacatctg
 241 ttatgtttatt gataacagct tccatgtatgc caccatcaag attcttcact tccacaatag
 301 ctccatccctt tagtggcccc ttatgtggc catcctgaac ttccactgtt gaagaatcat

361 gtctaaatgt caccttgact ttgacaagtc ttttgctgt cttgatcttggcgttcacaa
421 aaggctcctc tgtatttagc actcacatca gtgcccaactgt ccaaatagggg gaggctcatc
481 a

//

link save

LOCUS W37603 427 bp mRNA linear EST 10-OCT-1996
DEFINITION zc10h08.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone
IMAGE:321951 5' similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN
1 (HUMAN);, mRNA sequence.
ACCESSION W37603
VERSION W37603.1 GI:1319217
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 427)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
, M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
, R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 648 Std Error: 0.00
Seq primer: mob.REGA+ET
High quality sequence stop: 390.
FEATURES Location/Qualifiers
source 1..427
/organism="Homo sapiens"
/db_xref="GDB: 1259609"
/db_xref="taxon:9606"
/clone="IMAGE:321951"
/clone_lib="Soares_parathyroid_tumor_NbHPA"
/tissue_type="parathyroid tumor"
/dev_stage="adult"
/lab_host="DH10B (ampicillin resistant)"
/note="Organ: parathyroid gland; Vector: pT7T3D (Pharmacia
) with a modified polylinker; Site_1: Not I; Site_2: Eco
RI; 1st strand cDNA was primed with a Not I - oligo(dT)
primer
[5'-TGTTACCAATCTGAAGTGGGAGCGGCCGCACCAATTTTTTTTTTTTT
TTTT-3'], double-stranded cDNA was size selected, ligated
to Eco RI adapters (Pharmacia), digested with Not I and
cloned into the Not I and Eco RI sites of a modified pT7T3
vector (Pharmacia). Library went through one round of
normalization to a Cot = 5. Library constructed by Bento
Soares and M.Fatima Bonaldo. RNA from sporadic parathyroid
adenomas was kindly provided by Dr. Stephen Marx, National
Institute of Diabetes and Digestive and Kidney Diseases,
NIH."
BASE COUNT 106 a 112 c 77 g 132 t
ORIGIN
1 aaagtgggag ctggctaat gtttcacttt cagcaaaatg cctctccct ttcaggcaca
61 gtgaagatcg tctcagtgtc ttctcatctc cgatcataaa aactacagtg taccaactcg
121 catctgttag ttatttgtata acagttccct gatatgcacc atcaagattc ttcaattcca
181 caatagctcc tacctttagt ggcccttta tgtggtcattc ctgaacttcc actgtgaag
241 aatcatgtct aatgtcacc ttgactttga caagtcattt tgctgtctt atcttggctt

301 cacaaaaggc tcctctgtat ttagcactca catcagtgcc cactgtcaa tagggaggct
361 catcaagggc cttcatgatg actctgggac caaggtatcc tctaaaacac caggttcagc
421 tgcacct

//

link save

LOCUS W67770 562 bp mRNA linear EST 15-OCT-1996
DEFINITION zd37g11.rl Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone
 IMAGE:342884 5', mRNA sequence.
ACCESSION W67770
VERSION W67770.1 GI:1376642
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 562)
AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlffing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
TITLE The WashU-Merck EST Project
JOURNAL Unpublished (1995)
COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1152 Std Error: 0.00
 Seq primer: mob.REGA+ET
 High quality sequence stop: 396.
FEATURES Location/Qualifiers
source
 1..562
 /organism="Homo sapiens"
 /db_xref="GDB: 1268259"
 /db_xref="taxon:9606"
 /clone="IMAGE:342884"
 /clone_lib="Soares_fetal_heart_NbHH19W"
 /sex="unknown"
 /dev_stage="19 weeks"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: heart; Vector: pT7T3D (Pharmacia) with a
 modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
 strand cDNA was primed with a Not I - oligo(dT) primer [5'
 TGTACCAATCTGAAGTGGAGCGGCCATTTTTTTTTTT 3'],
 double-stranded cDNA was size selected, ligated to Eco RI
 adapters (Pharmacia), digested with Not I and cloned into
 the Not I and Eco RI sites of a modified pT7T3 vector
 (Pharmacia). Library went through one round of
 normalization to a Cot = 5. Library constructed by
 M.Fatima Bonaldo. This library was constructed from the
 same fetus as the fetal lung library, Soares fetal lung
 NbHL19W."
BASE COUNT 139 a 129 c 98 g 187 t 9 others
ORIGIN
 1 tttcatcatc ttcctccccc tcttcttcct ctgtttcaact gcttagagcta tcttctttca
 61 attcagtctt ccagtttagca ggaatagttc tacttttgtaaattcaagt gcctgttcaa
 121 aggcttgctt taaaacagca tcaggctttg gtgcagtgtc actagtaatt tcatggacat
 181 cttttcttgg aactgaagt aattttccat ctttggaaaga tcgaacaaga atattgtcc
 241 ttttacagc aatctcatca ctacaatcg gacaaaccac caatgcaggaa aaccacagt
 301 ctttctttt atccaaacta atgtaatcta cacatacaac tttgcctagt agctcatcaa
 361 tctgtttcct atcatcctca tcttcatcac tggaggatga tgaagactnt tcctctgggt
 421 anatgattag atcttcttcc tcnaatttg tttncttcct atgactggng tgccaaaatg

481 ctcaggggtt ggtnagtggg gagctgggtc naaatggttc accttcaggc aaaaaggnc
541 ctctcctttc agggcacngt gg

//

[link] [] save

LOCUS W67771 568 bp mRNA linear EST 15-OCT-1996
 DEFINITION zd37g11.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone
 IMAGE:342884 3' similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN
 1 (HUMAN);, mRNA sequence.

ACCESSION W67771
 VERSION W67771.1 GI:1376643
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 568)
 AUTHORS Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlffing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 ,R., Williamson,A., Wohldmann,P. and Wilson,R.
 TITLE The WashU-Merck EST Project
 JOURNAL Unpublished (1995)
 COMMENT Contact: Wilson RK
 Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810
 Email: est@watson.wustl.edu
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Possible reversed clone: polyT not found
 Insert Length: 1152 Std Error: 0.00
 Seq primer: mob.REGA+ET
 High quality sequence stop: 427.

FEATURES Location/Qualifiers
source
 1..568
 /organism="Homo sapiens"
 /db_xref="GDB: 1268259"
 /db_xref="taxon:9606"
 /clone="IMAGE:342884"
 /clone_lib="Soares_fetal_heart_NbHH19W"
 /sex="unknown"
 /dev_stage="19 weeks"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: heart; Vector: pT7T3D (Pharmacia) with a
 modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
 strand cDNA was primed with a Not I - oligo(dT) primer [5'
 TGTTACCAATCTGAAGTGGGAGCGGCCGCATTTTTTTTTTTTTTT 3'],
 double-stranded cDNA was size selected, ligated to Eco RI
 adapters (Pharmacia), digested with Not I and cloned into
 the Not I and Eco RI sites of a modified pT7T3 vector
 (Pharmacia). Library went through one round of
 normalization to a Cot = 5. Library constructed by
 M.Fatima Bonaldo. This library was constructed from the
 same fetus as the fetal lung library, Soares fetal lung
 NbHL19W."

BASE COUNT 149 a 129 c 164 g 122 t 4 others
 ORIGIN

```

  1  gcgnccngcc aaacaaaagg accagtcgcc gcccggagg aggaggagcc ggagccctcg
  61 cctcagcagc cgctggaccc gccgccttc ttccccatct ctccccggg cctgtggtt
  121 ttggggggga gaaggagaga gggactctg gacgtgccag ggtcagatct cgcctccgag
  181 gaagggtgcag ctgaacctgg ttttttagag gataccttgg tcccaagatc atcatgaagg
  241 cccttgatga gcctccctat ttgacagtgg gcactgatgt gagtgctaaa tacagaggag
  301 ccttttgtga agccaagatc aagacagcaa aaagacttgt caaaagtcaag gtgacattta

```

361 gacatgattc ttcaacagtg gaagttcagg atgaccacat aaagggccca ctaaaggttag
421 gagctattgt ggaagtgaag aatcttgatg gtgcataatca ggaagctgtt atcaataaac
481 taacagatgc gaatttngta cactgttagtt ttttgaatga ccggagatga gaagaccctg
541 ngacgatctt cactgtgcct gaaaagag

//

link save

LOCUS W84531
 DEFINITION zd90h11.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone
 671 bp mRNA linear EST 17-OCT-1996
 IMAGE:356805 3' similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN
 1 (HUMAN);, mRNA sequence.

ACCESSION W84531
 VERSION W84531.1 GI:1395643
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens.

REFERENCE Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 AUTHORS Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
 M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
 Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
 R., Williamson,A., Wohldmann,P. and Wilson,R.

TITLE The WashU-Merck EST Project
 JOURNAL Unpublished (1995)
 COMMENT Contact: Wilson RK

Washington University School of Medicine
 4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
 Tel: 314 286 1800
 Fax: 314 286 1810

Email: est@watson.wustl.edu

This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.

Possible reversed clone: polyT not found

Insert Length: 1159 Std Error: 0.00

Seq primer: ETPrimer

FEATURES High quality sequence stop: 481.

source Location/Qualifiers
 1..671
 /organism="Homo sapiens"
 /db_xref="GDB: 1273349"
 /db_xref="taxon:9606"
 /clone="IMAGE:356805"
 /clone_lib="Soares_fetal_heart_NbHH19W"
 /sex="unknown"
 /dev_stage="19 weeks"
 /lab_host="DH10B (ampicillin resistant)"
 /note="Organ: heart; Vector: pT7T3D (Pharmacia) with a
 modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
 strand cDNA was primed with a Not I - oligo(dT) primer [5',
 TGTTACCAATCTGAAGTGGGAGCGGCCGCATTTTTTTTTTT 3'],
 double-stranded cDNA was size selected, ligated to Eco RI
 adaptors (Pharmacia), digested with Not I and cloned into
 the Not I and Eco RI sites of a modified pT7T3 vector
 (Pharmacia). Library went through one round of
 normalization to a Cot = 5. Library constructed by
 M.Fatima Bonaldo. This library was constructed from the
 same fetus as the fetal lung library, Soares fetal lung
 NbHL19W."

BASE COUNT ORIGIN 181 a 150 c 192 g 143 t 5 others

1	gcgaccgc	aacaaaggta	ccagtcgccc	ccggggagg	aggaggagcc	ggagcctctg
61	cctcagc	cagc	cgctggaccc	gccgccttc	ttccccatct	ctcccnccgg
121	ttggggggga	gaaggagaga	ggggactctg	gacgtccag	ggtcagatct	cgcctccgag
181	gaaggtgcag	ctgaacctgg	tgttttagag	gatacctgg	tcccagagtc	atcatgaagg
241	cccttgatga	gcctccctat	ttgacagtgg	gcactgtat	gagtgtaaa	tacagaggag
301	ccttttgtga	agccaagatc	aagacagcaa	aaagacttgt	caaagtcaag	gtgacattta

361 gacatgattc ttcaacagtg gaagttcagg atgaccacat aaaggccc ca ctaaaggtag
421 gagctattgt ggaagtgaag aatcttcatg gtgcataatca ggaagctgtt atcaataaac
481 taaccagatg cgagttggta cactgttagtt tttgatgacg gagatgagaa gacactgaga
541 cgatcttcatt gtgcctgaaa gagagaagca tttgctgaaa gtgaacatta gaccagttcc
601 aatnaccanc ctgagcattt ggcaccccg tcatggaaag aaccaattgg ggagagtna
661 tctntccagg g

//

link save

LOCUS AA399016 520 bp mRNA linear EST 16-MAY-1997
DEFINITION zt93d11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:729909
5', mRNA sequence.
ACCESSION AA399016
VERSION AA399016.1 GI:2052815
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 520)
AUTHORS Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S.,
Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B.,
Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,
T., Waterston,R. and Wilson,R.
TITLE WashU-Merck EST Project 1997
JOURNAL Unpublished (1997)
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -28m13 rev2 ET from Amersham
High quality sequence stop: 492.
FEATURES
source Location/Qualifiers
1..520
/organism="Homo sapiens"
/db_xref="GDB: 5926438"
/db_xref="taxon: 9606"
/clone="IMAGE:729909"
/clone_lib="Soares_testis_NHT"
/sex="male"
/lab_host="DH10B"
/note="Vector: pT7T3D-Pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA
was prepared from mRNA obtained from Clontech Laboratories
, Inc., and primed with a Not I - oligo(dT) primer [5'
TGTTACCAATCTGAAGTGGGAGCGGCCGCCAATTTTTTTTTTTTT 3'].
Double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Not I and cloned into the Not I
and Eco RI sites of the modified pT7T3 vector. Library
went through one round of normalization to Cot5, and was
constructed by Bento Soares and M. Fatima Bonaldo. "
BASE COUNT 154 a 93 c 102 g 171 t
ORIGIN
1 ctccacccatc atccaggttcc ataacagctg ctgttatgtt aacttttagct gaaccgtcaa
61 tggccagcgc atcacaaaat ggaatgtcag ttgagtgccag gtgcacagcag gacttgtctaa
121 agcaacttgc acttaatggc tggtagggc cactttttt ttatactgca cagtggcaca
181 aaaaaatatac agacaaggcac tattttatat taaaaaattt tttcttgaca agctgacttg
241 gcacttaagt gcactttttt atgaagaaaa agtacaatga actgcttttc ctcaagcaat
301 aattgttcc aacttgcgtc ggaattgtgt gtctggtaac tggaaaggcct tccactgtgg
361 caaatggagg ctttcactg cctgttagaga caatacagta agcatagttt aaggggtgggt
421 cagaacatgt taagataact tactgtatat gtattccctt gtattttgtt aaagctggaa
481 catttgatat tttccattt atttatgaaa aaatatgaac

//

LOCUS AA479433 500 bp mRNA linear EST 08-AUG-1997
DEFINITION zv14d12.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:753623
5', mRNA sequence.
ACCESSION AA479433
VERSION AA479433.1 GI:2207989
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 500)
AUTHORS Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S.,
Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B.,
Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,
T., Waterston,R. and Wilson,R.
TITLE WashU-Merck EST Project 1997
JOURNAL Unpublished (1997)
COMMENT Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -28m13 rev2 ET from Amersham
High quality sequence stop: 470.
FEATURES Location/Qualifiers
source 1..500
/organism="Homo sapiens"
/db_xref="GDB: 5976486"
/db_xref="taxon: 9606"
/clone="IMAGE: 753623"
/clone_lib="Soares_NhHMPu_S1"
/tissue_type="Pooled human melanocyte, fetal heart, and
pregnant uterus"
/lab_host="DH10B"
/note="Organ: mixed (see below); Vector: pT7T3D-Pac
(Pharmacia) with a modified polylinker; Site_1: Not I;
Site_2: Eco RI; Equal amounts of plasmid DNA from three
normalized libraries (melanocyte 2NbHM, pregnant uterus
NbHPU, and fetal heart NbHH19W) were mixed, and ss circles
were made in vitro. Following HAP purification, this DNA
was used as tracer in a subtractive hybridization
reaction. The driver was PCR-amplified cDNAs from pools of
5,000 clones made from the same 3 libraries. The pools
consisted of I.M.A.G.E. clones 260232-265223,
340488-345479, and 484488-489479."
BASE COUNT 158 a 76 c 96 g 170 t
ORIGIN
1 ggcacttaag tcacttttt atgaagaaaa agtacaatga actgcttttc ctcaagcaat
61 aattgtttcc aacttgtctg ggaattgtgt gtctggtaac tggaggcct tccactgtgg
121 caaatggagg ctttctactg cctgttagaga caatacagta agcatagtta aggggtgggt
181 cagaacatgt taagataact tactgtatat gtattccctt gtatttgtt aaagctggaa
241 catttgatat tttccattt atttatgaaa aaatatgaac ctatttcat ttgtacaagg
301 taattgtttt ttaaagcaag tcaccttagg gtggctttaa ttgtataagt caagcacatg
361 taataaattc aaaacctgca gttAACAGGA tattagacat caatcctgg aaccaaataat
421 taaagattct cttaaaaaaa gactgaacat gtttacaggt ttgtattttt cttttttttt
481 ttgcagtggc ttttcatggc
//

THIS PAGE BLANK (USPTO)

link save

LOCUS AA262427 461 bp mRNA linear EST 13-AUG-1997
 DEFINITION zs17e11.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:685484 5'
 similar to TR:G435776 G435776 RETINOBLASTOMA BINDING PROTEIN 1. ;,
 mRNA sequence.
 ACCESSION AA262427
 VERSION AA262427.1 GI:1897923
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 461)
 AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
 TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Tumor Gene Index
 JOURNAL Unpublished (1997)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 This clone is available royalty-free through LLNL ; contact the
 IMAGE Consortium (info@image.llnl.gov) for further information.
 Possible reversed clone: similarity on wrong strand
 Insert Length: 1206 Std Error: 0.00
 Seq primer: -28m13 rev2 ET from Amersham
 High quality sequence stop: 422.
 FEATURES Location/Qualifiers
source 1..461
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone="IMAGE:685484"
 /clone_lib="NCI_CGAP_GCB1"
 /tissue_type="germinal center B cell"
 /lab_host="DH10B"
 /note="Vector: pT7T3D-Pac (Pharmacia) with a modified
 polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA
 was prepared from human tonsillar cells enriched for
 germinal center B cells by flow sorting (CD20+, IgD-),
 provided by Dr. Louis M. Staudt (NCI), Dr. David Allman
 (NCI) and Dr. Gerald Marti (CBER). cDNA synthesis was
 primed with a Not I - oligo(dT) primer
 [5'-TGTACCAATCTGAAGTGGGAGCGGCCGCCTCATTTCATTTTTTTTT-3']
]. Double-stranded cDNA was ligated to Eco RI adaptors
 (Pharmacia), digested with Not I and cloned into the Not I
 and Eco RI sites of the modified pT7T3 vector. Library
 went through one round of normalization, and was
 constructed by Bento Soares and M. Fatima Bonaldo."
 BASE COUNT 120 a 111 c 64 g 166 t
 ORIGIN
 1 catcatcttc ctccctcctct ttttcctctg cttcactgct agagctatct tctttcaatt
 61 cagtcttcca gttagcagga atagttctac ttttgtgaaa ttcaagtgcc tggtaaaagg
 121 cttgccttaa aacagcatca ggcttgggtg cagtgtcaact agtaatttca tggacatctt
 181 ttcttggAAC tgaagtaaat ttccatctt tgaaagatcg aacaagaata ttgtccttt
 241 ttacagcaat ctcatcacta caatcaggac aaaccaccaa tgcaggaaac cacagtgc
 301 tcttttatac caaactaatg taatctacac atacaacttt gccttagtagc tcataatct
 361 gtttcctatc atcctcatct tcatacactgg aggatgatga agactcttcc tctggatat
 421 gattagatct ttttcctcta ttgttttct ttcctatgac a
 //

● link ● save

LOCUS AA279595 399 bp mRNA linear EST 15-AUG-1997
DEFINITION zs86f05.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:704385 5' similar to SW:RBB1_HUMAN P29374 RETINOBLASTOMA BINDING PROTEIN 1 ;, mRNA sequence.
ACCESSION AA279595
VERSION AA279595.1 GI:1921068
KEYWORDS EST.
SOURCE human.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 399)
AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index
JOURNAL Unpublished (1997)
COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL ; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 709 Std Error: 0.00
Seq primer: -28m13 rev2 ET from Amersham
High quality sequence stop: 328.
FEATURES

<u>source</u>	Location/Qualifiers
	1..399
	/organism="Homo sapiens"
	/db_xref="taxon:9606"
	/clone="IMAGE:704385"
	/clone_lib="NCI_CGAP_GCB1"
	/tissue_type="germinal center B cell"
	/lab_host="DH10B"
	/note="Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA was prepared from human tonsillar cells enriched for germinal center B cells by flow sorting (CD20+, IgD-), provided by Dr. Louis M. Staudt (NCI), Dr. David Allman (NCI) and Dr. Gerald Marti (CBER). cDNA synthesis was primed with a Not I - oligo(dT) primer [5'-TGTTACCAATCTGAAGTGGGAGCGGCCGCCTCATTTTTTTTTTT-3']. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization, and was constructed by Bento Soares and M. Fatima Bonaldo."

BASE COUNT 127 a 87 c 101 g 84 t
ORIGIN

```

1  gcagaggagt cactgcagac tgtggctgaa gaggagagtt gttcacccag tgtagaacta
61 gagtcaccac atccagtcaa tgtcgatagt aaacccattg aaaaaaaaaac agtagaggtc
121 aatgacagaa aagcagaatt tccaagtagt ggcagtaatt cagtgcctaa tacccttcct
181 actacacctg aatcgcccttc atcagtcaact gtaacagaag gcagccggca gcagtcttct
241 gtaacagtat cagaaccact ggctccaaac caagaagagg ttcaagatcat caagagtcaa
301 actgatagca caattgaggt ggatagtggt gctggggagc tccaagaccc ccagtctgaa
361 gggaatagct cgcagcagggt ttgtatgccat gtgtgagct

```

11

link save

LOCUS AA485189 363 bp mRNA linear EST 15-AUG-1997
 DEFINITION aa40d12.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815735 5'
 similar to gb:S66427 RETINOBLASTOMA BINDING PROTEIN 1 (HUMAN);,
 mRNA sequence.
 ACCESSION AA485189
 VERSION AA485189.1 GI:2214408
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 363)
 AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
 TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Tumor Gene Index
 JOURNAL Unpublished (1997)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Louis M. Staudt, M.D., Ph.D., David Allman,
 Ph.D., Gerald Marti, M.D.
 cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
 Bonaldo, Ph.D.
 cDNA Library Arrayed by: Greg Lennon, Ph.D.
 DNA Sequencing by: Washington University Genome Sequencing Center
 Clone distribution: NCI-CGAP clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
 Seq primer: -28m13 rev1 ET from Amersham.
 FEATURES Location/Qualifiers
source 1..363
 /organism="Homo sapiens"
 /db_xref="GDB: 6035293"
 /db_xref="taxon:9606"
 /clone="IMAGE:815735"
 /clone_lib="NCI_CGAP_GCB1"
 /tissue_type="germinal center B cell"
 /lab_host="DH10B"
 /note="Vector: pT7T3D-Pac (Pharmacia) with a modified
 polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cDNA
 was prepared from human tonsillar cells enriched for
 germinal center B cells by flow sorting (CD20+, IgD-),
 provided by Dr. Louis M. Staudt (NCI), Dr. David Allman
 (NCI) and Dr. Gerald Marti (CBER). cDNA synthesis was
 primed with a Not I - oligo(dT) primer
 [5'-TGTACCAATCTGAAGTGGAGCGGCCCTCATTTTTTTTTTTT-3']
]. Double-stranded cDNA was ligated to Eco RI adaptors
 (Pharmacia), digested with Not I and cloned into the Not I
 and Eco RI sites of the modified pT7T3 vector. Library
 went through one round of normalization, and was
 constructed by Bento Soares and M. Fatima Bonaldo."
 BASE COUNT 108 a 75 c 58 g 122 t
 ORIGIN
 1 tcggcacgag gcacactcct tacattgctt gttaacaact ttctctggca atgcagtctg
 61 aaattcaatg ttggctgatc tacagtactc ctcaaaacca tataagtatt ttttataagc
 121 acattnaaca ttgtatcctg cagctgaatt taagacaggg attccaagat cttggtagac
 181 ttgtttccaa acagctccac ttcaaatatt atcaaatcct ccaagtttg gtacaagtct
 241 gaataaactta aagagattca aatttcgata tccaagtaca ggtcggtttaataagggt
 301 acctctatct tccataaatt tgtacaattt ctgaagaaag ttctccctt cttctggaaa
 361 tgg
 //

THIS PAGE BLANK

link save

LOCUS AA296993 271 bp mRNA linear EST 18-APR-1997
 DEFINITION EST112543 Adrenal gland tumor Homo sapiens cDNA 5' end, mRNA
 sequence.
 ACCESSION AA296993
 VERSION AA296993.1 GI:1949324
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 271)
 AUTHORS Adams,M.D., Kerlavage,A.R., Fleischmann,R.D., Fuldner,R.A., Bult
 ,C.J., Lee,N.H., Kirkness,E.F., Weinstock,K.G., Gocayne,J.D., White
 ,O., Sutton,G., Blake,J.A., Brandon,R.C., Man-Wai,C., Clayton,R.A.,
 Cline,T.R., Cotton,M.D., Earle-Hughes,J., Fine,L.D., Fitzgerald
 ,L.M., Fitzhugh,W.M., Fritchman,J.L., Geoghegan,N.S., Glodek,A.,
 Gnehm,C.L., Hanna,M.C., Hedblom,E., Hinkle,P.S.Jr., Kelley,J.M.,
 Kelley,J.C., Liu,L.-I., Marmaros,S.M., Merrick,J.M.,
 Moreno-Palauques,R.F., McDonald,L.A., Nguyen,D.T., Pelligrino,S.M.,
 Phillips,C.A., Ryder,S.E., Scott,J.L., Saudek,D.M., Shirley,R.,
 Small,K.V., Spriggs,T.A., Utterback,T.R., Weidman,J.F., Li,Y.,
 Bednarik,D.P., Cao,L., Cepeda,M.A., Coleman,T.A., Collins,E.J.,
 Dimke,D., Feng,D.-F., Ferrie,A., Fischer,C., Hastings,G.A., He,W.W.,
 Hu,J.S., Greene,J.M., Gruber,J., Hudson,P., Kim,A.K., Kozak,D.L.,
 Kunsch,C., Hungjun,J., Li,H., Meissner,P.S., Olsen,H., Raymond,L.,
 Wei,Y.F., Wing,J., Xu,C., Yu,G.L., Ruben,S.M., Dillion,P.J., Fannon
 ,M.R., Rosen,C.A., Haseltine,W.A., Fields,C., Fraser,C.M. and
 Venter,J.C.
 TITLE Initial assessment of human gene diversity and expression patterns
 based upon 83 million nucleotides of cDNA sequence
 JOURNAL Nature 377 (6547 Suppl), 3-174 (1995)
 MEDLINE 96026280
 COMMENT Contact: Kerlavage, AR
 Bioinformatics
 The Institute for Genomic Research
 9712 Medical Center Drive, Rockville, MD 20850 USA
 Tel: 3018699056
 Fax: 3018699423
 Email: arkerlav@tigr.org
 For clone availability, additional sequence and expression
 information related to this EST, please check the TIGR Human Gene
 Index (<http://www.tigr.org/tdb/hgi/hgi.html>)
 Seq primer: M13 Reverse.
 FEATURES Location/Qualifiers
source
 1..271
 /organism="Homo sapiens"
 /db_xref="ATCC (inhost):120417"
 /db_xref="taxon:9606"
 /clone_lib="Adrenal gland tumor"
 /dev_stage="adult"
 /note="Organ: adrenal gland; Vector: pBluescript SK-;
 Site_1: EcoRI; Site_2: XhoI"
 BASE COUNT 124 a 29 c 67 g 51 t
 ORIGIN
 1 attagaatct atacctacac attctgatca ggaaaaagaa gttaacatta aaaaaccaga
 61 agacaatgaa aatctggatg acaaagatga tgacacaact agggttagatg aatccctcaa
 121 cataaaggta gaagctgagg aagaaaaagc aaaatctgga gatgaaacgta ataaagaaga
 181 agatgaagat gatgaagaag cagaagagga ggaggaggag gaagaagaag aagaggaaga
 241 aaatcttaag tgattgatgc tggtttcttt t
 //

THIS PAGE BLANK (USPTO)